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(TRX06-01(KMG1097))

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Harry Eugene Flynn, Robert O. Martin and Charles A. Natalie
Serial No.: 10/670,981
Title: CHANGING FLUID FLOW DIRECTION
Filing Date: September 25, 2003
Examiner: James M. Hewitt
Art Unit: 3679
Conf. No.: 8092

Certificate of Mailing Under 37 C.F.R. §1.8

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Date: September 29, 2006

By: Pina L. Butler
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Pina L. Butler

MAIL STOP APPEAL BRIEF-PATENTS

Commissioner for Patents
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Sir:

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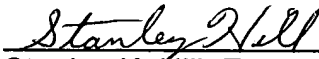
- ☒ Transmittal Letter (this form, 2 pages, in duplicate), Total Pages: 4;
- ☒ Reply to Notification of Non-Compliant Appeal Brief, Total Pages: 6;
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Applicant hereby petitions for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this submission, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-3735.

If the enclosed papers or fees are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned collect at (508) 616-9660, in Westborough, Massachusetts.

Respectfully submitted,



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Attorney Docket No.: KMG1097-US1

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REPLY TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

This paper responds to the Notification of Non-Compliant Appeal Brief mailed from the United States Patent and Trademark Office on September 11, 2006 ("current Office Action").

Please replace Section 5 of the Appeal Brief with the following Section 5:

5. SUMMARY OF CLAIMED SUBJECT MATTER

There are two pending independent claims: Claim 12 and Claim 28. Claim 12 is drawn to the more general embodiment of a piping elbow, comprising a substantially cylindrical body containing a removable liner, a tangential inlet containing a removable liner, and a tangential outlet containing a removable liner. Claim 28, on the other hand, is drawn to a preferred embodiment of a piping elbow, comprising two substantially-identical components including 1) a substantially cylindrical body section containing a removable liner and 2) a tangential inlet/outlet containing a removable liner. Claims 12 and 28 are both supported by Figures 1-13 and the specification as a whole, but especially at page 1, line 23 to page 2, line 22 (summary); page 9, lines 7-29 (description of liners); page 10, lines 1-22 (description of two substantially-identical components); page 11, line 3 to page 12, line 26 (description of liner creation); and page 12, lines 3-26 (description and advantages of removable liners).

Please replace Section 6 of the Appeal Brief with the following Section 6:

6. ISSUES PRESENTED FOR REVIEW

I. Claim Objections

The Examiner has objected to Claims 28 and 29. In support of these objections, the Examiner asserts the following:

In claim 28, line 3, "the body section" should be "each body section".

In claim 29, line 1, the phrase "where in the removable liners are" should be replaced with the phrase "wherein each of the removable liners is".

Appropriate correction is required.

The Examiner has also objected to Claims 28 and 29 under 37 C.F.R. §1.75(i) and has required appropriate corrections.

II. Claim Rejections – 35 U.S.C. §112

The Examiner has rejected Claims 28 and 29 under 35 U.S.C §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In support of this rejection, the Examiner asserts the following:

In claim 28, lines 3-5, the use of "or" renders the claim indefinite. In lines 3-4, the phrase "each component including a tangential inlet or outlet" erroneously allows for each component to have an inlet, or for each component to have an outlet. In lines 4-5, it is unclear as to which inlet or outlet the phrase "the tangential inlet or tangential outlet containing a removable liner" refers; there is an inlet or outlet on each component.

Claim 29 is rejected as it depends from claim 28.

III. Claim Rejections – 35 U.S.C. §102

The Examiner has rejected Claims 12 and 13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,301,651 issued to Cocchiara et al ("Cocchiara"). In support of this rejection, the Examiner asserts the following:

With respect to claim 12 and with reference to FIG. 13, Cocchiara et al discloses a piping elbow, comprising: a substantially cylindrical body having a first end (37) and a second end (38), wherein at least one of the ends is removably attached and wherein the body contains a removable liner (40,41,42); a tangential inlet (33) attached to the body near the first end having a diameter smaller than the diameter of the body, wherein the tangential inlet contains a removable liner (see FIG. 13); and a tangential outlet (35) attached to the body near the second end having a diameter smaller than the diameter of the body, wherein the

tangential outlet contains a removable liner (see FIG. 13).

The first end (37) and second end (38) are said to be welded to the reactor. The ends are considered removable insofar as they can be removed by a given means, e.g. a cutting means. Similarly, the liners are considered removable insofar as they could be removed by force.

With respect to claim 13, the method of forming the device is not germane to the issue of patentability of the device itself. A product must structurally distinguish from the prior art. Cocchiara et al meets the claim insofar as the tangential inlet liner and the tangential outlet liner are disposed in a cavity in the body liner. As shown in FIG. 13 and described in col. 8, ll. 49-53, inlet and outlet liners 42 extend into body liner 40 (note the darkened line representing liner 42 that extends into body liner 40).

IV. Claim Rejections - §103

A. Rejection of Claim 14 under 35 U.S.C. §103

The Examiner has rejected Claim 14 under 35 U.S.C. §103(a) as being unpatentable over Cocchiara in view of U.S. Patent No. 4,55,721 issued to Carty et al. ("Carty"). In support of this rejection the Examiner asserts the following:

Cocchiara et al does not disclose that the liners are ceramic as required by claim 14. Carty et al teaches that is known to provide an elbow with a ceramic liner (column 2, lines 50-55) for wear resistance of the fluids on the elbow body. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the liners from ceramic rather than stainless steel as ceramic would be desirable for reasons of both cost and weight and further since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

B. Rejection of Claim 28 under 35 U.S.C. §103

The Examiner has rejected Claim 28 under 35 U.S.C. 103(a) as being unpatentable over Cocchiara in view of U.S. Patent No. 255,427 issued to Forman ("Forman"). In support of this rejection the Examiner asserts the following:

As described above, Cocchiara et al discloses a piping elbow, comprising: a substantially cylindrical body having a first end (37) and a second end (38), wherein at least one of the ends is removably attached and wherein the body contains a removable liner (40, 41,42); a tangential inlet (33) attached to the body near the first end having a diameter smaller than the diameter of the body, wherein the tangential inlet contains a removable liner (see FIG. 13); and a tangential outlet (35) attached to the body near the second end having a diameter smaller than the diameter of the body, wherein the tangential outlet contains a removable liner (see FIG. 13).

Cocchiara et al fails to teach that the elbow comprises two substantially-identical components, wherein each component includes: a substantially

cylindrical body section having a first end and an open second end; a tangential inlet or tangential outlet attached to the body section near the first end, the tangential inlet or tangential outlet containing a removable liner wherein the second ends of the two components are removably attached to each other. Forman teaches that it is known in the art to provide a pipe joint comprising two substantially identical body portions each having a branch pipe connected thereto. The body portions are removably attached to one another as at E and F. Forming the joint in this manner permits the body portions to be relatively adjusted to permit the branch pipes to be oriented at various angles. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form Cocchiara's body in two halves in order to permit the tangential pipes to be oriented at various relative angles.

C. Rejection of Claim 29 under 35 U.S.C. §103

The Examiner has rejected Claim 29 under 35 U.S.C. 103(a) as being unpatentable over Cocchiara in view of Forman as applied to Claim 28 above, and further in view of Carty. In support of this rejection the Examiner asserts the following:

Cocchiara et al does not disclose that the liners are ceramic as required by claim 29. Carty et al teaches that is known to provide an elbow with a ceramic liner (column 2, lines 50-55) for wear resistance of the fluids on the elbow body. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the liners from ceramic rather than stainless steel as ceramic would be desirable for reasons of both cost and weight and further since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 41 6.

REMARKS

Applicants have carefully reviewed and considered the current Office Action. Applicants thank the Patent Appeal Center Specialist, Tracey Young, for the courtesy of a telephone interview on September 27, 2006. In the interview, Ms. Young indicated that, in lieu of a complete replacement Appeal Brief, replacement sections can be submitted for those sections that did not previously contain proper headings as required under 37 CFR 41.37(c)(1).

Applicants herein submit replacement Section 5 and replacement Section 6. Accordingly, applicants contend that the Appeal Brief complies with 37 CFR 41.37.

If the Examiner believes that a telephone conversation with the Applicants' representative would facilitate prosecution of this application in any way, the Examiner is cordially invited to telephone the undersigned at (508) 303-2003. If necessary, please apply any additional fees, or credit overpayments, to Deposit Account 50-2295.

Respectfully submitted,



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